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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/056,423 | 01/23/2002 | Ey-Chih Chow | 021052-000110US | 8068 |
| 20350 | 7590 | 03/07/2005 | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 | | | NGUYEN, THANH | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2144 | |

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,423

Applicant(s)

CHOW, EY-CHIH

Examiner

Tammy T Nguyen

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-36 is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 12-19 is/are rejected.
- 7) ☒ Claim(s) 2 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/6/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____



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Detailed Office Action

1. This action is in response to the application 10/056,423 filed. **January 23, 2002.**
2. Claims 1-36 have been examined.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-10, and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bull et al., (hereinafter Bull) U.S. Patent No. 6,208,975 in view of Furegati et al., (hereinafter Furegati) U.S. Patent No. 5,966,704.

5. As to claim 1, Bull teaches the invention as claimed, including a system for retrieving and integrating data from a plurality of data sources, comprising: an aggregation server configured to convert a data request into an internal query (travel genie system 200 of fig.1) (see col.3, lines 30-53, col.8, lines 32-65), and one or more agents, each agent configured to communicate with one or more data sources (network accessible datastores 300 communicate with data sources of fig.1) and retrieve data from the one or more data sources pursuant to an associated subquery provided by the aggregation server (see col.3, line 62 to col.4, line 21, col.8, lines 32-64); wherein the aggregation server is further configured to join, fuse and union respective data retrieved by the one or more agents (see col.3, line 62 to col.4, line 21); and wherein the one or more agents are located at respective remote locations and the aggregation server communicates with the one or more agents via a computer network (Network accessible datastores 300 communicates with travel genie system 200). But Bull does not explicitly disclose generating one or more subqueries from the internal query by matching the internal query against a set of rules. However, Furegati discloses generating one or more subqueries from the internal query by matching the internal query against a set of rules (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull to generate one or more subqueries form the internal query because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save, restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.

6. As to claim 3, Bull teaches the invention as claimed, wherein each agent has a corresponding agent capability file; and wherein the aggregation server is further configured to check the corresponding agent capability file of an agent before the agent is invoked to retrieve data from one or more data sources pursuant to an associated subquery provided by the aggregation server (see col.8, lines 17-64).
7. As to claim 4, Bull does not explicitly teach receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed. However, Furegati teaches receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save, restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.

8. As to claim 5, Bull does not teaches aggregation server formulates a query execution plan using the one or more subqueries generated from the internal query, and wherein the one or more subqueries are executed by their respective agents pursuant to the query execution plan to optimize access to the one or more data sources. However, aggregation server formulates a query execution plan using the one or more subqueries generated from the internal query, and wherein the one or more subqueries are executed by their respective agents pursuant to the query execution plan to optimize access to the one or more data sources (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull aggregation server formulates a query execution plan using the one or more subqueries generated from the internal query, and wherein the one or more subqueries are executed by their respective agents pursuant to the query execution plan to optimize access to the one or more data sources because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save, restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.
9. As to claim 6, Bull teaches the invention as claimed, wherein the computer network is the Internet (network of fig.1).

10. As to claim 7, Bull teaches the invention as claimed, wherein the plurality of data sources includes a database or an application (Data stores of fig.2).
11. As to claim 8, Bull teaches the invention as claimed, wherein the aggregation server and the one or more agents are implemented using software, hardware or a combination of both (Operations system of fig.4).
12. As to claim 9, Bull teaches the invention as claimed, wherein communications between the aggregation server and the one or more agents are encoded in XML format (see col.3, lines 30-67).
13. As to claim 10, Bull teaches the invention as claimed, including a system for retrieving and integrating data from a plurality of data sources over a computer network, comprising: an aggregation server configured to receive a data request from a user and convert the data request into an internal query (travel genie system 200 of fig.1) (see col.3, lines 30-53, col.8, lines 32-65); and a plurality of agents, one or more agents forming a set of agents configured to communicate with one or more data sources (network accessible datastores 300 communicate with data sources of fig.1); and retrieve data from the one or more data sources pursuant to a corresponding subquery provided by the aggregation server (see col.3, line 62 to col.4, line 21, col.8, lines 32-64); wherein the aggregation server is further configured to union respective data retrieved by one or more of the plurality of agents (see col.3, line 62 to col.4, line 21); and wherein the plurality of

agents are located at respective remote locations and the aggregation server communicates with the plurality of agents via the computer network (Network accessible datastores 300 communicates with travel genie system 200). But Bull does not explicitly disclose configuring to match the internal query against a set of rules and, for each matched rule, generate a corresponding subquery. However, Furegati discloses configuring to match the internal query against a set of rules and, for each matched rule, generate a corresponding subquery (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull to generate a corresponding subquery because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save, restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.

14. As to claim 12, Bull teaches the invention as claimed, wherein each agent has a corresponding agent capability file; and wherein the aggregation server is further configured to check the corresponding agent capability file of an agent before the agent is invoked to retrieve data from one or more data sources pursuant to the corresponding subquery provided by the aggregation server (see col.8, lines 17-64).
15. As to claim 13, Bull does not explicitly teach teaches receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which

corresponds to the associated subquery to enable the one or more data sources to be accessed. However, Furegati teaches receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save, restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.

16. As to claim 14, Bull does not explicitly teach teaches receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed. However, Furegati teaches receiving the associated subquery provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull receiving the associated subquery

provided by the aggregation server, an agent uses a query mapping file which corresponds to the associated subquery to enable the one or more data sources to be accessed because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save, restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.

17. As to claim 15, Bull does not teaches aggregation server formulates a query execution plan using the one or more subqueries generated from the internal query, and wherein the one or more subqueries are executed by their respective agents pursuant to the query execution plan to optimize access to the one or more data sources. However, aggregation server formulates a query execution plan using the one or more subqueries generated from the internal query, and wherein the one or more subqueries are executed by their respective agents pursuant to the query execution plan to optimize access to the one or more data sources (see col.3, line 35 to col.4, line 41, col.9, line 43 to col.10, line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of Furegati into the computer system of Bull aggregation server formulates a query execution plan using the one or more subqueries generated from the internal query, and wherein the one or more subqueries are executed by their respective agents pursuant to the query execution plan to optimize access to the one or more data sources because it would have provided an efficient system that can keep individual data compartments in a size fit for easy operational handling such save,

restore/recovery, reorganization, and migration/recall to/from cheaper and slower devices.

18. As to claim 16, Bull teaches the invention as claimed, wherein the computer network is the Internet (network of fig.1).

19. As to claim 17, Bull teaches the invention as claimed, wherein the plurality of data sources includes a database or an application (Data stores of fig.2).

20. As to claim 18, Bull teaches the invention as claimed, wherein the aggregation server and the one or more agents are implemented using software, hardware or a combination of both (Operations system of fig.4).

21. As to claim 19, Bull teaches the invention as claimed, wherein communications between the aggregation server and the one or more agents are encoded in XML format (see col.3, lines 30-67).

Allowable Subject Matter

22. Claims 2, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reason for allowance

23. Claims 20-36 are allowed.
24. The prior art does not disclose a method for using an aggregation server and plurality of agents to retrieve and integrate data from a plurality of data sources via a computer network, comprising: instructing the aggregation server to generate a query definition file from a data request, and the query definition file having a head portion and a tail portion, instructing the aggregation server to match the query definition file against a mediator specification file having a plurality of rules, each rule having a head portion, a set of rules is considered to be match if the tail portion of the query definition file matches the corresponding combined head portions of the rules in the set, and for each set of matched rules, instructing the aggregation server to generate a corresponding subquery, the subquery including information on a specific set of agents to be invoke, and for the specific set of agents to be invoked, instructing the aggregation server to check corresponding agent capability files to determine if each of the specific set of agents is capable of handling the corresponding subqueries, also for specific agents that are determined to be capable of handling their corresponding subqueries, instructing each

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such specific agent to retrieve data from one or more of the plurality of data sources using a corresponding query mapping file and return the retrieve data to the aggregation server; and upon receiving the returned data from the specific agents, instructing the aggregation server to perform join, fusion and union operations on the returned data.

Conclusion

25. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at (571) 272-3929. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to (703) 872-9306. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Bill Cuchlinski, may be reached at (571) 272-3925.

TTN

February 22, 2005



WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3800